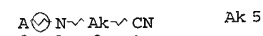
```
=> file reg
FILE 'REGISTRY' ENTERED AT 15:56:43 ON 08 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:    7 SEP 2003  HIGHEST RN 581049-54-9
DICTIONARY FILE UPDATES:   7 SEP 2003  HIGHEST RN 581049-54-9

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available.  See HELP
PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> file caplus
FILE 'CAPLUS' ENTERED AT 15:56:47 ON 08 SEP 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)


Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN.  Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 8 Sep 2003  VOL 139 ISS 11
FILE LAST UPDATED: 7 Sep 2003  (20030907/ED)

  This file contains CAS Registry Numbers for easy and accurate
  substance identification.


=> d que
L7              STR
```

Deleted



NODE ATTRIBUTES:
NSPEC IS R AT 2
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M2-X20 C AT 5

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE
L9 SCR 1838
L14 SCR 2089
L16 6256 SEA FILE=REGISTRY SSS FUL L14 AND L9 AND L7
L17 2435 SEA FILE=CAPLUS ABB=ON PLU=ON L16
L18 17 SEA FILE=CAPLUS ABB=ON PLU=ON L17 AND (RESIST OR PHOTORESIST)

=> d ti 1-17

L18 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Semiconductor wafer having uncured resin film coating used as temperature sensor for measuring surface temperature of such as ceramic heaters

L18 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Photosensitive epoxy (meth)acrylate polymer compositions and printed circuit boards

L18 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Solder **resist** compositions with high crack resistance and printed circuit boards using them

L18 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Polysilane conductive composition and its application in photosensitive **resists**, antistatic agents, and semiconductor devices

L18 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Novolak epoxy resin acrylate-based curable composition and manufacture of liquid plating **resist** from it

L18 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Adhesive for electroless plating, raw material composition for preparing adhesive for electroless plating and printed wiring board

L18 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Solder **resist** composition and printed circuit board using it

L18 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Fabrication of printed circuit boards

L18 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Photoresist** composition for plating

L18 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Adhesives for electroless plating and multilayered printed circuit boards using them

L18 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Photo- and thermally curable compositions

L18 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Photo- and thermally curable compositions

L18 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Epoxy resin-based **resist** ink compositions

L18 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI **Photoresist** compositions for printed circuit boards

L18 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Pyridone monoazo dyes

L18 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Alkali-discharge-**resist** dyeing compositions for polyester fibers

L18 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
TI Pyridone monoazo dyes

=> d ibib abs hitstr ind total

L18 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:94396 CAPLUS
DOCUMENT NUMBER: 138:143168
TITLE: Semiconductor wafer having uncured resin film coating used as temperature sensor for measuring surface temperature of such as ceramic heaters
INVENTOR(S): Sugimoto, Keizo; Ito, Yasutaka
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

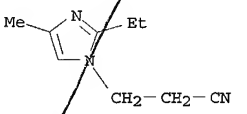
JP 2003035606 A2 20030207 JP 2001-223007 20010724
PRIORITY APPLN. INFO.: JP 2001-223007 20010724

AB Claimed is the semiconductor wafer having a uncured resin film coating, e.g., a **photoresist**. Temp. distribution of a heater, e.g., a ceramic heater, can be estd. from the degree of curing of the resin film which is calcd. from a diam. of openings lithog. formed in the film, the ratio of thickness of the film before/after developing, and the changes in n of the film after developing.

IT **23996-25-0**, 2E 4MZ CN
RL: TEM (Technical or engineered material use); USES (Uses)
(hardening agent in **photoresist** film component; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G01K001-14
ICS G01K007-02; G01N021-41; H01L021-66

CC 69-4 (Thermodynamics, Thermochemistry, and Thermal Properties)
Section cross-reference(s): 76

ST heater temp measurement uncured resin coated semiconductor wafer

IT Heaters
(ceramic; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT **Photoresists**
(coatings on wafer; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, acrylates, **photoresist** film component; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT Ceramics
(heaters; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, acrylates, **photoresist** film component; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT Thermometers
(semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

IT Semiconductor materials
(wafer; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)
IT 1314-36-9, Yttria, uses 1344-28-1, Alumina, uses 24304-00-5, Aluminum nitride
RL: TEM (Technical or engineered material use); USES (Uses)
(ceramic heater component; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)
IT 12633-97-5P, Aluminum nitride oxide 148793-02-6P, Aluminum yttrium nitride oxide
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(ceramic heater; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)
IT **23996-25-0**, 2E 4MZ CN
RL: TEM (Technical or engineered material use); USES (Uses)
(hardening agent in **photoresist** film component; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)
IT 7440-21-3, Silicon, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(wafer; semiconductor wafer having uncured resin film coating used as temp. sensor for measuring surface temp. of such as ceramic heaters)

L18 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:686601 CAPLUS
DOCUMENT NUMBER: 133:259333
TITLE: Photosensitive epoxy (meth)acrylate polymer compositions and printed circuit boards
INVENTOR(S): Shimada, Kenichi
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000267274	A2	20000929	JP 1999-66990	19990312

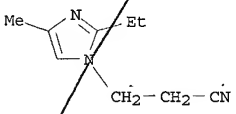
PRIORITY APPLN. INFO.: JP 1999-66990 19990312

AB The compns. comprise (a) epoxy (meth)acrylate, (b) hardening agent, and (c) P-contg. (meth)acrylic acid ester monomers. Preferable P-contg. (meth)acrylic acid ester monomers are given as Markush structures. Printed wiring boards consisting of a substrate having elec. circuits and photosensitive polymer layers comprising of the above stated compns. are also claimed. The compns. have excellent heat cycle characteristics and are suitable as solder **resist** layers, plating **resist** layers, interlayer insulators, etc.

IT **23996-25-0**, 2E 4MZ-CN
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(curing agent; photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-027
ICS G03F007-027; C08F002-50; C08F290-06; H05K003-00; H05K003-28; C08F230-02

CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 76

ST photosensitive epoxy acrylate compn printed circuit; printed circuit board photosensitive polymer layer; phosphorus contg acrylate monomer photosensitive polymer

IT Phenolic resins, uses
Phenolic resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, acrylates; photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

IT Electric insulators
(interlayer; photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

IT Epoxy resins, uses
Epoxy resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, acrylates; photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

IT Photoimaging materials
Printed circuit boards
Solder **resists**
(photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

IT **23996-25-0**, 2E 4MZ-CN
RL: DEV (Device component use); MOA (Modifier or additive use); USES

(Uses)
(curing agent; photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

IT 32435-46-4, Kayamer PM 2 103370-83-8, Kayamer PM 21
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(photosensitive epoxy (meth)acrylate polymer compns. contg. P-contg. (meth)acrylate monomers and printed circuit boards with the photosensitive polymer layers)

L18 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:659668 CAPLUS
DOCUMENT NUMBER: 133:245111
TITLE: Solder **resist** compositions with high crack resistance and printed circuit boards using them
INVENTOR(S): Shimada, Kenichi
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

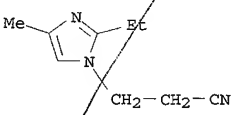
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000256441	A2	20000919	JP 1999-65103	19990311

PRIORITY APPLN. INFO.: JP 1999-65103 19990311

AB The compns. contain (A) novolak-type epoxy resin (meth)acrylates, (B) imidazole curing agents, (C) 3.5-15 wt.% (for total solids) bifunctional (meth)acrylic acid ester monomers. The printed circuit boards have solder **resist** layers obtained from them. The compns. show high crack resistance in heat-cycle test.

IT **23996-25-0**, 2E4MZ-CN
RL: CAT (Catalyst use); USES (Uses)
(curing agents; epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

RN 23996-25-0 CAPLUS
CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM C08G059-56
ICS C08G059-17; H05K003-28
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)
Section cross-reference(s): 38, 76

ST solder **resist** epoxy acrylate crack resistance; imidazole curing agent epoxy acrylate solder **resist**; printed circuit board epoxy acrylate solder **resist**

IT Printed circuit boards
Solder **resists**
(epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

IT Phenolic resins, uses
Phenolic resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, acrylates; epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

IT Epoxy resins, uses
Epoxy resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, acrylates; epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

IT **23996-25-0**, 2E4MZ-CN
RL: CAT (Catalyst use); USES (Uses)
(curing agents; epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

IT 25068-38-6, Epikote 1001 29570-58-9, DPE 6A 87320-05-6, Kayarad R 604 117681-05-7, Epikote 1001B80
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(epoxy acrylate-based solder **resists** with high crack resistance for printed circuit boards)

L18 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2000:470436 CAPLUS
DOCUMENT NUMBER: 133:90253
TITLE: Polysilane conductive composition and its application in photosensitive **resists**, antistatic agents, and semiconductor devices
INVENTOR(S): Hiraoka, Toshiro; Matsumoto, Kazunori; Hayase, Shuji; Sato, Yasuhiko; Nakasugi, Tetsuro
PATENT ASSIGNEE(S): Toshiba Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000191916	A2	20000711	JP 1998-372383	19981228
PRIORITY APPLN. INFO.:			JP 1998-372383	19981228

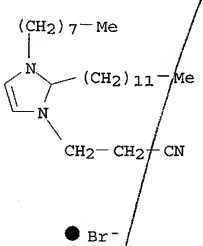
OTHER SOURCE(S): MARPAT 133:90253

AB Title compn. comprises a quaternary ammonium salt and an organosilicon polymer contg. polysilane units. Thus an anti-reflective film prepd. from a compn. comprising a polysilane consisting of methylphenylsilylene and (chloromethylphenyl)methylsilylene units and 5 wt.% of cetylpyridinium bromide had surface resistance of 6 .times. 109 .OMEGA..

IT **282109-44-8 282109-45-9**
RL: MOA (Modifier or additive use); USES (Uses)
(polysilane conductive compn. and its application in photosensitive resists, antistatic agents, and semiconductor devices)

RN 282109-44-8 CAPLUS

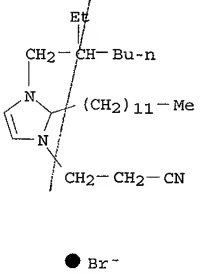
CN 1H-Imidazolium, 1-(2-cyanoethyl)-2-dodecyl-3-octyl-, bromide (9CI) (CA INDEX NAME)



*** FRAGMENT DIAGRAM IS INCOMPLETE ***

RN 282109-45-9 CAPLUS

CN 1H-Imidazolium, 1-(2-cyanoethyl)-2-dodecyl-3-(2-ethylhexyl)-, bromide (9CI) (CA INDEX NAME)



*** FRAGMENT DIAGRAM IS INCOMPLETE ***

IC ICM C08L083-16
ICS C08K005-19; C08K005-3445; C09K003-16; G03F007-004; G03F007-075;

KOROMA EIC1700

H01L021-027

CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74, 76

ST polysilane ammonium conductive compn; cetylpyridinium bromide polysilane conductive compn

IT Antistatic agents
Electric conductors
Photoresists
Semiconductor devices
(polysilane conductive compn. and its application in photosensitive **resists**, antistatic agents, and semiconductor devices)

IT Polysilanes
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polysilane conductive compn. and its application in photosensitive **resists**, antistatic agents, and semiconductor devices)

IT 140-72-7, Cetylpyridinium bromide 1643-19-2, Tetrabutylammonium bromide 61185-90-8 61811-05-0 282109-43-7 **282109-44-8** **282109-45-9**
RL: MOA (Modifier or additive use); USES (Uses)
(polysilane conductive compn. and its application in photosensitive **resists**, antistatic agents, and semiconductor devices)

IT 98387-81-6 212334-25-3
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(polysilane conductive compn. and its application in photosensitive **resists**, antistatic agents, and semiconductor devices)

L18 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:35252 CAPLUS
DOCUMENT NUMBER: 130:146228
TITLE: Novolak epoxy resin acrylate-based curable composition and manufacture of liquid plating **resist** from it
INVENTOR(S): Ono, Yoshitaka; Kawade, Masato
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11006074	A2	19990112	JP 1997-155204	19970612

PRIORITY APPLN. INFO.: JP 1997-155204 19970612

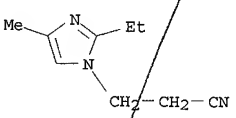
AB The compn. for manuf. of liq. plating **resists** comprises (A) a resin compn. contg. a novolak epoxy resin acrylate and an acrylic monomer and (B) a curing agent compn. contg. an imidazole curing agent and a photopolymn. initiator and each component is kept sepd. The liq. plating **resist**, which is used in manufd. of multilayer printed circuit

boards, is manufd. by mixing the above compn. just before use. The compn. shows long shelf life and keeps the uniform quality before use.

IT **23996-25-0**, 2E4MZ-CN
RL: CAT (Catalyst use); USES (Uses)
(curing agent; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM C23C018-31
ICS C23C018-31; G03F007-027; H05K003-18

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST novolak epoxy resin acrylate plating **resist**; shelf life plating **resist** epoxy resin; multilayer printed circuit board plating **resist**

IT Phenolic resins, uses
Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, acrylates, cresolic; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT **Resists**
(manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT Printed circuit boards
(multilayer; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT Epoxy resins, uses
Epoxy resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, acrylates, cresolic; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT 87320-05-6, R 604
RL: TEM (Technical or engineered material use); USES (Uses)
(R 604; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT **23996-25-0**, 2E4MZ-CN
RL: CAT (Catalyst use); USES (Uses)

(curing agent; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT 25068-38-6, Epikote 1001 29570-58-9, DPE 6A
RL: TEM (Technical or engineered material use); USES (Uses)
(manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

IT 71868-10-5, Irgacure I 907
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiator; manuf. of liq. plating **resist** from novolak epoxy resin acrylate-based curable compn. for multilayer printed circuit board)

L18 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:716250 CAPLUS
DOCUMENT NUMBER: 129:324766
TITLE: Adhesive for electroless plating, raw material composition for preparing adhesive for electroless plating and printed wiring board
INVENTOR(S): Asai, Motoo; Ono, Yoshitaka; Kawade, Masato; Noda, Kouta; Nishiwaki, Youko
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9847328	A1	19981022	WO 1998-JP1724	19980415
W: CN, KR, SG, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11172456	A2	19990629	JP 1997-335466	19971205
JP 3300653	B2	20020708		
JP 11004068	A2	19990106	JP 1998-104421	19980415
JP 11061089	A2	19990305	JP 1998-104423	19980415
JP 2996945	B2	20000111		
JP 2000124603	A2	20000428	JP 1999-222941	19980415
EP 1035758	A1	20000913	EP 1998-914030	19980415
EP 1035758	B1	20030319		
R: DE, GB, NL, FI				

PRIORITY APPLN. INFO.:
JP 1997-97735 A 19970415
JP 1997-155201 A 19970612
JP 1997-335466 A 19971205
JP 1998-104422 A3 19980415
WO 1998-JP1724 W 19980415

AB An adhesive for electroless plating and a printed wiring board each being advantageous for securing insulation reliability between wires and between layers while keeping a practical peel strength. Specifically an adhesive

for electroless plating prepd. by dispersing cured heat-resistant resin particles sol. in an acid or an oxidizing agent in an uncured heat-resistant resin matrix which becomes slightly sol. in an acid or an oxidizing agent upon curing treatment, characterized in that the heat-resistant resin particles have a mean particle size of less than 2 .mu.m and comprise fine particles and coarse particles; and a printed wiring board made by using this adhesive.

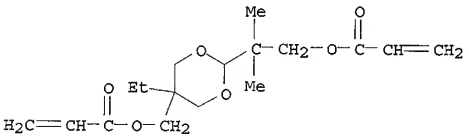
IT **214895-42-8P**, DPE 6A-Epikote 1001-2E4MZ CN-R 604 copolymer
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(epoxy copolymer, for solder **resist**; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

RN 214895-42-8 CAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (chloromethyl)oxirane, [2-[1,1-dimethyl-2-[(1-oxo-2-propenyl)oxy]ethyl]-5-ethyl-1,3-dioxan-5-yl]methyl 2-propenoate, 2-ethyl-4-methyl-1H-imidazole-1-propanenitrile and 4,4'-(1-methylethylidene)bis[phenol] (9CI) (CA INDEX NAME)

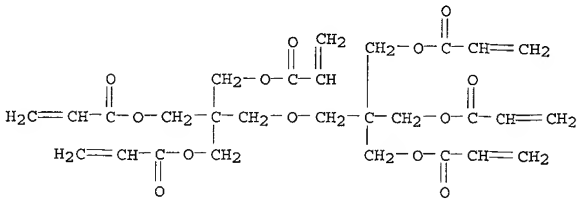
CM 1

CRN 87320-05-6
CMF C17 H26 O6



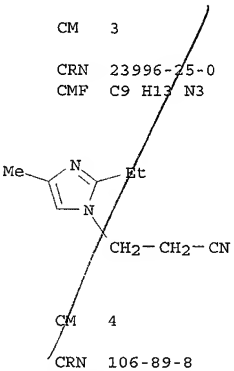
CM 2

CRN 29570-58-9
CMF C28 H34 O13



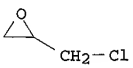
CM 3

CRN 23996-25-0
CMF C9 H13 N3



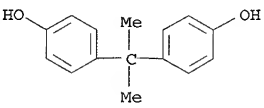
CM 4

CRN 106-89-8
CMF C3 H5 Cl O



CM 5

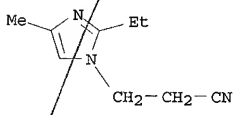
CRN 80-05-7
CMF C15 H16 O2



IT 23996-25-0DP, 2E4MZ CN, polymers with Aronix M315 and pyrrolidone polyether sulfone
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(interlayer insulator; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM H05K003-18
ICS H05K003-38; H05K003-46; C23C018-24; C09J201-00

CC 76-2 (Electric Phenomena)
Section cross-reference(s): 38, 56

ST electroless plating adhesive printed circuit board

IT Crosslinking
Oxidizing agents
Particle size
Printed circuit boards
(adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Dispersion (of materials)
(cured heat-resistant resin particles sol.; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Coating process
(electroless; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Surface roughness
(formation for plating; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Polyethers, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(imidazole- or n-methylpyrrolidone sulfone with Aronix M 315n, adhesive; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Adhesives
(materials for; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT Epoxy resins, properties
RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(phenolic, novolak, acrylated copolymers; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT 40220-08-4D, Aronix M 315, imidazole- or pyrrolidone polyether sulfone polymers
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(adhesive; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT 288-32-4D, Imidazole, polyether sulfone, polymers with Aronix M 315
872-50-4D, polyether sulfone, polymers with Aronix M 315
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(epoxy copolymer, adhesive; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT **214895-42-8P**, DPE 6A-Epikote 1001-2E4MZ CN-R 604 copolymer
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(epoxy copolymer, for solder **resist**; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT **23996-25-0DP**, 2E4MZ CN, polymers with Aronix M315 and pyrrolidone polyether sulfone 208266-46-0DP, Polymerpole, polymers with Aronix M315 and pyrrolidone polyether sulfone
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(interlayer insulator; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT 7440-50-8, Copper, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(lining substrate; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT 7440-31-5P, Tin, properties
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(plated surface; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

IT 60882-97-5P, Copper, nickel, phosphide
RL: DEV (Device component use); MOA (Modifier or additive use); PEP

(Physical, engineering or chemical process); PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(surface-roughened plated coating; adhesive for electroless plating, raw material compn. for prepg. adhesive for electroless plating and printed wiring board)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:365050 CAPLUS
DOCUMENT NUMBER: 129:48503
TITLE: Solder **resist** composition and printed circuit board using it
INVENTOR(S): Ono, Yoshitaka; Goto, Akihiko; Niki, Ayao; Asai, Motoo
PATENT ASSIGNEE(S): Ibiden Co, Ltd., Japan
SOURCE: Eur. Pat. Appl., 48 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 844809	A2	19980527	EP 1997-116093	19970916
EP 844809	A3	19991201		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10150249	A2	19980602	JP 1996-308845	19961120
JP 10150250	A2	19980602	JP 1996-308846	19961120
JP 3253873	B2	20020204		
JP 10242640	A2	19980911	JP 1997-231502	19970827
JP 10242625	A2	19980911	JP 1997-231503	19970827
JP 3224211	B2	20011029		
JP 2001133974	A2	20010518	JP 2000-261191	19970827
SG 73469	A1	20000620	SG 1997-3432	19970916
CN 1182660	A	19980527	CN 1997-118644	19970918

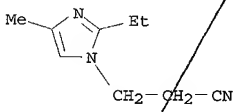
PRIORITY APPLN. INFO.:
JP 1996-308844 A 19961120
JP 1996-308845 A 19961120
JP 1996-308846 A 19961120
JP 1996-357962 A 19961227
JP 1997-231503 A3 19970827

AB A solder **resist** compn. comprises an acrylate of novolak-type epoxy resin and an imidazole curing agent and has a viscosity of 0.5-10 Pa-s adjusted with glycol ether type solvent. A printed circuit board is formed by using such a solder **resist** compn.

IT **23996-25-0**, 2E4MZ-CN
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(solder **resist** compn. for printed circuit boards contg.)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM H05K003-28
ICS H05K003-38; H05K003-40; G03F007-038
CC 76-14 (Electric Phenomena)
ST solder **resist** compn printed circuit board
IT Phenolic resins, uses
Phenolic resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(epoxy, novolak, acrylates; solder **resist** compn. for printed circuit boards contg.)
IT Glycols, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(ethers, solvents; solder **resist** compn. for printed circuit boards contg.)
IT Ethers, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(glycol, solvents; solder **resist** compn. for printed circuit boards contg.)
IT Epoxy resins, uses
Epoxy resins, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, acrylates; solder **resist** compn. for printed circuit boards contg.)
IT Polysulfones, uses
Polysulfones, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(polyether-; solder **resist** compn. for printed circuit boards contg.)
IT Polyethers, uses
Polyethers, uses
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(polysulfone-; solder **resist** compn. for printed circuit boards contg.)
IT Printed circuit boards
Solder **resists**
(solder **resist** compn. and printed circuit board using it)
IT Crosslinking agents

(solder **resist** compn. for printed circuit boards contg.)

IT 288-32-4D, Imidazole, derivs.
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(curing agents; solder **resist** compn. for printed circuit boards contg.)

IT 79-10-7D, 2-Propenoic acid, esters, polymers, uses 112-36-7, Diethylene glycol diethyl ether 7440-02-0, Nickel, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 12797-07-8 **23996-25-0**, 2E4MZ-CN 25068-38-6, Epikote 1001 40220-08-4, Aronix M315 68508-55-4, BT resin 106556-00-7, Aronix M325 148937-71-7, YL 983U 208266-42-6, CRS 1101CE 208266-46-0, Polymerpole
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(solder **resist** compn. for printed circuit boards contg.)

L18 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1998:28640 CAPLUS
DOCUMENT NUMBER: 128:161728
TITLE: Fabrication of printed circuit boards
INVENTOR(S): En, Bong Jin; Asai, Motoo
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10004254	A2	19980106	JP 1996-175551	19960614

PRIORITY APPLN. INFO.: JP 1996-175551 19960614

AB The title fabrication involves chem. roughening the surface of a photochem. polymer layer followed by 1st and 2nd electroless plating to give conductive circuits. The electroless plating involves 1st plating, washing the plated surface with water, washing with an aq. acid, and subsequently 2nd plating. The washing process eliminates contaminants and oxide films on the 1st plated surface as well as unusual ppt. on the **resist** for securing the adhesion between the 1st and 2nd plating layers.

IT **202604-65-7P**, CNA 50-Curezol 2PHZ CN-Kayarad TMPTA copolymer
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(photochem. insulator; fabrication of printed circuit boards)

RN 202604-65-7 CAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 4,5-bis[(2-cyanoethoxy)methyl]-2-phenyl-1H-imidazole-1-propanenitrile and CNA 50 (9CI) (CA INDEX NAME)

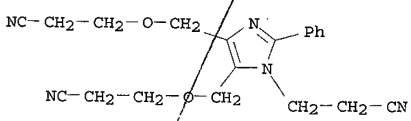
CM 1

CRN 195159-47-8
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

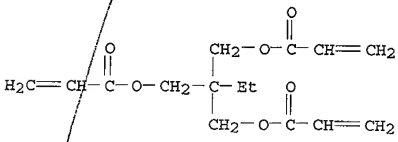
CM 2

CRN 65652-67-7
CMF C20 H21 N5 O2



CM 3

CRN 15625-89-5
CMF C15 H20 O6



IC ICM H05K003-18
ICS H05K003-46
CC 76-2 (Electric Phenomena)
Section cross-reference(s): 38, 56
ST surface roughening plating surface photochem polymer; electroless plating acid washing residue removal
IT Coating process
(blackening, copper circuit layer; fabrication of printed circuit boards)
IT Coating process
(electroless; fabrication of printed circuit boards)
IT Electric circuits
Printed circuit boards
Waters
(fabrication of printed circuit boards)
IT Adhesion, physical

(of plated layers; fabrication of printed circuit boards)
IT Epoxy resins, properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polymer filler; fabrication of printed circuit boards)
IT Photochemistry
(polymers; fabrication of printed circuit boards)
IT Solid wastes
(removal by washing; fabrication of printed circuit boards)
IT Acids, properties
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(washing liq.; fabrication of printed circuit boards)
IT 12797-07-8P 53218-63-6P
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(electroless plating soln.; fabrication of printed circuit boards)
IT 15593-15-4, Copper chloride (CuCl3)
RL: NUU (Other use, unclassified); PRP (Properties); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(etchant; fabrication of printed circuit boards)
IT 7440-50-8, Copper, properties
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(etching of; fabrication of printed circuit boards)
IT **202604-65-7P**, CNA 50-Curezol 2PHZ CN-Kayarad TMPTA copolymer
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(photochem. insulator; fabrication of printed circuit boards)
IT 202604-66-8P
RL: PEP (Physical, engineering or chemical process); PNU (Preparation, unclassified); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); PROC (Process); USES (Uses)
(photochem. **resist**; fabrication of printed circuit boards)

L18 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1997:632454 CAPLUS
DOCUMENT NUMBER: 127:301263
TITLE: **Photoresist** composition for plating
INVENTOR(S): Goto, Akihiko; Ono, Yoshitaka
PATENT ASSIGNEE(S): Ibiden Co, Ltd., Japan
SOURCE: Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 795788	A1	19970917	EP 1997-301577	19970310

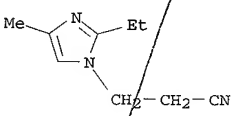
EP 795788	B1	20020724			
R: DE, FI, NL					
JP 09244241	A2	19970919	JP 1996-85802		19960313
JP 10062987	A2	19980306	JP 1996-239855		19960821
US 6010823	A	20000104	US 1997-813985		19970310
PRIORITY APPLN. INFO.:			JP 1996-85802	A	19960313
			JP 1996-239855	A	19960821

AB A **photoresist** compn. for plating comprises a partially acrylated, uncured novolak-type epoxy resin as a photosensitive resin ingredient and an imidazole curing agent as a curing agent, wherein the imidazole curing agent is liq. at 25.degree. or the compn. contains an acrylic ester polymer having a mol. wt. of 500-5000. By using such a **photoresist** compn., a printed wiring board having excellent conduction reliability and heat cycle property can be provided.

IT **23996-25-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(Curezol 2E4MZ-CN; curing agent for **photoresists** contg. acrylated novolak epoxy resins)

RN 23996-25-0 CAPLUS

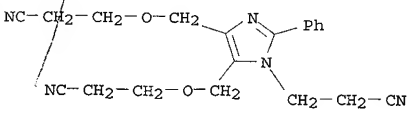
CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IT **65652-67-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(Curezol 2PHZ-CN; curing agent for **photoresists** contg. acrylated novolak epoxy resins)

RN 65652-67-7 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 4,5-bis[(2-cyanoethoxy)methyl]-2-phenyl- (9CI) (CA INDEX NAME)



IC ICM G03F007-032
ICS G03F007-038

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST **photoresist** acrylated novolak epoxy resin imidazole

IT Epoxy resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(acrylated, novolak; **photoresists** contg. imidazole curing agents and)

IT **Photoresists**
(contg. partially acrylated novolak epoxy resins and imidazole curing agents)

IT Printed circuits
(**photoresists** contg. partially acrylated novolak epoxy resins and imidazole curing agents for)

IT Polysulfones, uses
Polysulfones, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-; **photoresists** contg. imidazole curing agents and)

IT Polyethers, uses
Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polysulfone-; **photoresists** contg. imidazole curing agents and)

IT 13750-62-4
RL: TEM (Technical or engineered material use); USES (Uses)
(Curezol 1B2MZ; curing agent for **photoresists** contg. acrylated novolak epoxy resins)

IT **23996-25-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(Curezol 2E4MZ-CN; curing agent for **photoresists** contg. acrylated novolak epoxy resins)

IT **65652-67-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(Curezol 2PHZ-CN; curing agent for **photoresists** contg. acrylated novolak epoxy resins)

IT 90-94-8, Michler's ketone 9003-32-1, Poly(ethyl acrylate) 15625-89-5, Kayarad TMPTA 25068-38-6, Epikote 1001 25667-42-9, PES 26022-14-0, Poly(hydroxyethyl acrylate) 26760-85-0, Butyl acrylate-2-ethylhexyl acrylate copolymer 29570-58-9, DPE-6A 40220-08-4, Aronix M315 87320-05-6, Kayarad R-604 87605-70-7, Aronix M215 96119-31-2, EOCN-103S 195159-47-8, CNA-50
RL: TEM (Technical or engineered material use); USES (Uses)
(**photoresists** contg. imidazole curing agents and)

L18 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1997:543048 CAPLUS
DOCUMENT NUMBER: 127:235464
TITLE: Adhesives for electroless plating and multilayered printed circuit boards using them
INVENTOR(S): Goto, Akihiko
PATENT ASSIGNEE(S): Ibiden Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

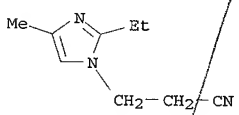
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09208911	A2	19970812	JP 1996-37134	19960130

PRIORITY APPLN. INFO.: JP 1996-37134 19960130

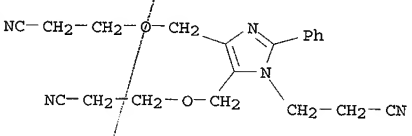
AB In the title adhesives, acid- or oxidant-sol. heat-resistant polymer particles are dispersed in acid- or oxidant-insol. heat-resistant polymer uncured solns. contg. photosensitive thermosetting polymers, no thermoplastic polymers, and curing agents which are liq. at 25.degree.. The printed circuit boards having interlayer insulating layers obtained by curing the adhesives are also claimed. Thus, melt kneading diethylene glycol di-Me ether 10, CNA 50 (cresol novolak epoxy resin acrylate) 40, Epikote 1001 20, Kayarad TMPTA 6, Curezol 1B2MZ 4, Irgacure DETX-S 1, and Toraypearl 25 parts, applying the mixt. on a glass-epoxy substrate, drying, laminating with a photomask film, exposing, developing, irradiating by UV light, heating, coarsening, forming a plating resist, and electroless plating with Cu gave a printed circuit board showing good heat and moisture resistance.

IT **23996-25-0**, Curezol 2E4MZ-CN **65652-67-7**, Curezol 2PHZ-CN
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalysts; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

RN 23996-25-0 CAPLUS
CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



RN 65652-67-7 CAPLUS
CN 1H-Imidazole-1-propanenitrile, 4,5-bis[(2-cyanoethoxy)methyl]-2-phenyl- (9CI) (CA INDEX NAME)



IC ICM C09J009-00
ICS H05K003-18; H05K003-46

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 76

ST adhesive electroless plating printed circuit board; elec insulator adhesive curing printed circuit; imidazole curing catalyst adhesive printed circuit; heat resistance adhesive printed circuit board; moisture

resistance adhesive printed circuit board

IT Adhesives
Electric insulators
Heat-resistant materials
Impact-resistant materials
Printed circuit boards
(adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT Coating process
(electroless; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT Crosslinking catalysts
(imidazoles; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT Epoxy resins, uses
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(particles; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT Epoxy resins, uses
RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(phenolic, novolak, cresol, acrylates; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT 36446-02-3P 168203-58-5P, Aronix M 215 homopolymer
RL: DEV (Device component use); IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT 25068-38-6, Epikote 1001 195159-47-8, CNA 50
RL: DEV (Device component use); POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT 13750-62-4, Curezol 1B2MZ **23996-25-0**, Curezol 2E4MZ-CN
65652-67-7, Curezol 2PHZ-CN
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalysts; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

IT 112327-34-1, Toraypearl
RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)
(particles; adhesives for electroless plating as interlayer insulating layers of multilayered printed circuit boards)

L18 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1990:207960 CAPLUS
DOCUMENT NUMBER: 112:207960
TITLE: Photo- and thermally curable compositions
INVENTOR(S): Shirato, Hitoshi

PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01266534	A2	19891024	JP 1988-95056	19880418

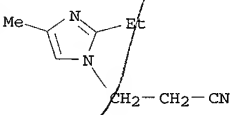
PRIORITY APPLN. INFO.: JP 1988-95056 19880418

AB The title compns. contain (a) linear polymers with ethylenic group and carboxyl group in side chain 10-90, (b) photopolymerizable monomers with .gtoreq.2 terminal ethylenic groups 5-90, (c) epoxy resins having .gtoreq.2 epoxy group in mol. 1-90, (d) photopolymn. initiator 0.01-15, and (e) low-boiling solvent with b.p. .ltoreq.120.degree. and dielec. const. (at 20.degree.) .ltoreq.5 0.01-10 wt.%. These compns. are excellent as solder **resists** for manuf. of printed circuits, and provide rapid drying of coated layer before exposure. Thus, a compn. contg. reaction product of 100 parts linear 4:2:1:3 (wt.) acrylic acid-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer with 40 parts glycidyl acrylate 100, 2,4-diethylxanthone 8, Et p-dimethylaminobenzoate 16, silica powder 25, 1-cyanoethyl-2-ethyl-4-methyl imidazole 2.5, hydroquinone 8, Phthalocyanine Green 2, diethylene glycol monobutyl ether 120, and Mg silicate 70 parts, was kneaded with another compn. contg. Epikote 828 (bisphenol A epoxy resin) 25, YDCN 704 (cresol novolak epoxy resin) 36, tetraethylene glycol diacrylate 25, pentaerythritol triacrylate 25, and benzene (invention solvent) 8 parts. Mixed compn. was kneaded and applied on Cu-coated circuit board, dried at 70.degree. for 20 min. Patternwise exposure, development with sprayed 1% Na2CO3 and heating at 150.degree. for 30 min gave **resist** pattern with high hardness resolving 30-.mu.m lines. High resistance of the **resist** to solvents, acid, alkali, and heat cycles was shown.

IT **23996-25-0**
RL: USES (Uses)
(heat-curable **photoresists** contg., as solder **resists**
)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G03C001-68
ICS G03C001-68
ICA G03C001-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76
ST **photoresist** heat curable printed circuit; hardening agent heat curable **photoresist**; printed circuit solder **resist**
IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(heat-curable **photoresists** contg., as solder **resists**
)
IT **Resists**
(photo-, heat-curable, as solder **resist**, fast-drying)
IT Electric circuits
(printed, heat-curable **photoresists** for manuf. of, fast-drying)
IT 3524-68-3, Pentaerythritol triacrylate 17831-71-9, Tetraethylene glycol diacrylate **23996-25-0** 25068-38-6, Epikote 828 94362-50-2, YDCN 704 126845-64-5, Acrylic acid-2-ethylhexyl acrylate-glycidyl acrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer
RL: USES (Uses)
(heat-curable **photoresists** contg., as solder **resists**
)
IT 71-43-2, Benzene, uses and miscellaneous 110-82-7, Cyclohexane, uses and miscellaneous
RL: USES (Uses)
(heat-curable **photoresists** contg., for fast drying)

L18 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1990:207959 CAPLUS
DOCUMENT NUMBER: 112:207959
TITLE: Photo- and thermally curable compositions
INVENTOR(S): Takada, Hisami; Shirato, Hitoshi
PATENT ASSIGNEE(S): Sekisui Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01266533	A2	19891024	JP 1988-95055	19880418

PRIORITY APPLN. INFO.: JP 1988-95055 19880418

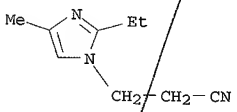
AB The title compns. contain (a) linear polymers with ethylenic group and carboxyl group in side chain, (b) photopolymerizable monomers with .gtoreq.2 terminal ethylenic groups, (c) epoxy resins having .gtoreq.2 epoxy group in mol., (d) photopolymn. initiator, and (e) layered minerals impregnated with thermal hardening agents between the layers. These compns. are excellent as solder **resists** for manuf. of printed circuits, and developable with aq. alkali. Thus, 100 g Mg silicate was stirred in MEK contg. 10 parts 1-cyanoethyl-2-ethyl-4-methylimidazole, filtered, washed and dried, to obtain Mg silicate contg. 3% thermal

hardening agent. A compn. contg. reaction product of 100 parts linear 4:2:1:3 (wt.) acrylic acid-2-ethylhexyl acrylate-2-hydroxyethyl methacrylate-Me methacrylate copolymer with 40 parts glycidyl acrylate 100, Epikote 828 (bisphenol A epoxy resin) 33, YDCN704 (cresol novolak epoxy resin) 36, 2,4-diethylxanthone 8, Et p-dimethylaminobenzoate 16, silica powder 25, tetraethylene glycol diacrylate 25, pentaerythritol triacrylate 25, above treated Mg silicate 50, hydrated Mg silicate 50, hydroquinone 8, Phthalocyanine Green 2 parts, and solvent, was kneaded and applied on Cu-coated circuit board, dried, and patternwise exposed. Development with sprayed 1% Na2CO3 and heating at 180.degree. for 30 min gave **resist** pattern with pencil hardness 4H-5H resolving 30-.mu.m lines. High resistance of the **resist** to solvents, alkali, and heat cycles was shown.

IT **23996-25-0**
RL: USES (Uses)
(hardening agent, impregnated minerals contg., heat-curable **photoresists** contg.)

RN 23996-25-0 CAPLUS

CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G03C001-68
ICS G03C001-00; G03C001-68

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST **photoresist** heat curable printed circuit; hardening agent heat curable **photoresist**; printed circuit solder **resist**

IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(heat-curable **photoresists** contg., as solder **resists**)

IT **Resists**
(photo-, heat-curable, hardening agent-impregnated minerals contained in, alkali-developable, as solder **resist**)

IT Electric circuits
(printed, heat-curable **photoresists** for manuf. of)

IT **23996-25-0**
RL: USES (Uses)
(hardening agent, impregnated minerals contg., heat-curable **photoresists** contg.)

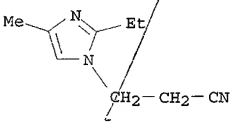
IT 3524-68-3, Pentaerythritol triacrylate 17831-71-9, Tetraethylene glycol diacrylate 25068-38-6, Epikote 828 61579-38-2, 2-Ethylhexyl acrylate-2-hydroxyethyl methacrylate-methacrylic acid-methyl methacrylate copolymer 94362-50-2, YDCN 704 126845-64-5

RL: USES (Uses)
(heat-curable **photoresists** contg., as solder **resists**
)
IT 1318-93-0, Montmorillonite 1343-88-0
RL: USES (Uses)
(impregnated with epoxy polymer hardening agents, heat-curable **photoresists** contg.)

L18 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1988:512173 CAPLUS
DOCUMENT NUMBER: 109:112173
TITLE: Epoxy resin-based **resist** ink compositions
INVENTOR(S): Takayama, Yukiyoshi; Suzuki, Toshihiro; Kodama, Hiroki
PATENT ASSIGNEE(S): Shikoku Chemicals Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63030578	A2	19880209	JP 1986-175345	19860724
JP 05075032	B4	19931019		

PRIORITY APPLN. INFO.: JP 1986-175345 19860724
AB The screen-printable title compns. with desirable pot life and forming flexible protective and insulation coatings comprise an epoxy resin, imidazole compd., and C12-22 long-chain dibasic acid anhydride (intermol. polyanhydride). A typical compn. providing screen-printed coating with excellent adhesion and solder heat resistance comprised Epikote 828 100, 2,4-diamino-6-[(2-methyl-imidazolyl)ethyl]-s-triazine isocyanurate 5, HO[CO(CH2)5(CH2CHPh)2(CH2)5CO2]3-10H 30, Aerosil 300 1, BaSO4 40, talc 20, KS 603 defoamer 0.5 part.
IT **23996-25-0**
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for epoxy resin **resists**)
RN 23996-25-0 CAPLUS
CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
ICS C09D011-00; C09D011-10; H05K003-28
CC 42-9 (Coatings, Inks, and Related Products)
Section cross-reference(s): 76

ST epoxy **resist** coating elec insulator; polyanhydride crosslinking agent epoxy resin; imidazole crosslinking agent epoxy resin; heat resistant epoxy **resist**

IT Coating materials
(epoxy resins, for printed circuit boards, hardeners for)

IT Crosslinking agents
(polymeric long chain anhydrides and imidazole derivs., for epoxy resins)

IT Anhydrides
RL: USES (Uses)
(polymeric, long-chain, crosslinking agents, for epoxy resin)

IT Electric insulators and Dielectrics
(coatings, epoxy resin-based, heat-resistant, hardeners for)

IT Coating materials
(heat-resistant, epoxy resins, for printed circuit boards, hardeners for)

IT Electric circuits
(printed, boards, manuf. of, epoxy resins and protective coatings for)

IT 931-36-2, 2-Ethyl-4-methylimidazole **23996-25-0** 38668-46-1
53036-94-5 53037-60-8 68490-66-4 84826-37-9 84828-52-4
86850-87-5 86850-88-6 86851-00-5 86851-05-0 114955-73-6
114955-74-7 114955-76-9 114964-71-5
RL: MOA (Modifier or additive use); USES (Uses)
(crosslinking agents, for epoxy resin **resists**)

IT 114955-69-0 114955-70-3 114955-71-4 114955-72-5
RL: USES (Uses)
(**resists**, screen-printable, for flexible printed circuit boards)

L18 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1988:177231 CAPLUS
DOCUMENT NUMBER: 108:177231
TITLE: **Photoresist** compositions for printed circuit boards
INVENTOR(S): Kataoka, Masayuki; Takahashi, Eiji; Akazawa, Masashi; Miyasaka, Haruyuki
PATENT ASSIGNEE(S): Nippon Soda Co., Ltd., Japan; Seiko Epson Corp.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62249143	A2	19871030	JP 1986-92910	19860422

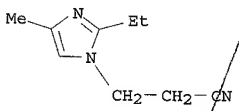
PRIORITY APPLN. INFO.: JP 1986-92910 19860422

AB Title compns. with good resoln. and causing no electromigration comprise photopolymerizable unsatd. compds. contg. terminal ethylene groups, initiators, and imidazole compds. Mixing 100 parts reaction product of 1,1,1-trimethylolpropane, TDI, polybutadiene, 2-hydroxyethyl acrylate and

ethylene glycol dimercaptopropionate with benzyl di-Me ketal 5,2-ethyl-4-methylimidazole (I) 5, and pigment 0.2 part gave a **resist** which, when used in manuf. of printed circuit board by the additive method, had crosscut adhesion 100/100, pattern resoln. 40-50 .mu., pencil hardness 6H, excellent gloss, heat and solvent resistance, and no electromigration at 60 degree. and 95% relative humidity after 1000 h, compared to a board prepd. with **resist** contg. no I, which showed electromigration.

IT **23996-25-0**
RL: USES (Uses)
(crosslinker, **photoresist** contg., for elec. circuit boards for inhibiting electromigration)

RN 23996-25-0 CAPLUS
CN 1H-Imidazole-1-propanenitrile, 2-ethyl-4-methyl- (9CI) (CA INDEX NAME)



IC ICM G03C001-68
ICS C08F002/50; H05K003-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photocurable urethane acrylate circuit board; heat resistant **photoresist** urethane acrylate; adhesion **photoresist** urethane acrylate; electromigration inhibitor imidazole **photoresist**

IT Electrodiffusion
(inhibition of, in printed circuit board, **photoresists** for, contg. imidazole compds.)

IT Urethane polymers, uses and miscellaneous
RL: USES (Uses)
(photocurable, for **photoresists** for printed circuit boards, with added imidazole compds. for inhibiting electromigration)

IT Electric circuits
(printed, boards, **photoresists** for manuf. of, urethane acrylate as, contg. imidazole compds. for inhibiting electromigration)

IT 583-39-1 931-36-2, 2-Ethyl-4-methylimidazole **23996-25-0** 50729-78-7
RL: USES (Uses)
(crosslinker, **photoresist** contg., for elec. circuit boards for inhibiting electromigration)

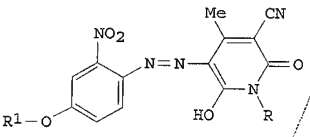
IT 114166-88-0
RL: USES (Uses)
(**photoresists**, for printed circuit board, with added imidazole compds. for inhibiting electromigration)

L18 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:34602 CAPLUS
DOCUMENT NUMBER: 106:34602
TITLE: Pyridone monoazo dyes
INVENTOR(S): Niwa, Toshio; Himeno, Kiyoshi; Yoshihara, Junji
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61019664	A2	19860128	JP 1984-139388	19840705

PRIORITY APPLN. INFO.: JP 1984-139388 19840705
OTHER SOURCE(S): CASREACT 106:34602
GI

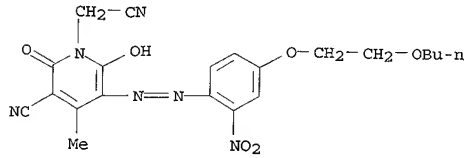


I

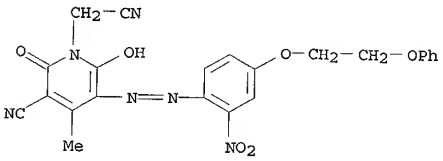
AB Title dyes I [R = CH2CN, CH2CO2 R2; R1, R2 = (alkoxy)alkyl, alkenyl, CH2Ph, CH2CH2OPh; R = C4-8 alkyl when R = CN; when R = CO2R2, then R2 = (alkoxy)alkyl or (alkoxy)alkenyl, R1 + R2 = C4-8] show excellent heat resistance, moisture fastness, and alkali discharge **resist** dyeability. Thus, treating I (R = H, R1 = Me) with ClCH2CO2Bu in the presence of NaHCO3, Bu4NBr, and H2O at 80.degree. for 5 h gave 80% I (R = CH2CO2Bu, R1 = Me)(II). Polyester fabric was soaked on aq. soln. contg. II, HCHO-naphthalenesulfonic acid condensate (FNC) and higher alc. sulfates at 130.degree. for 60 min, soaped, washed, dried to give an orange fabric with fastness to light, sublimation , moisture, and good alkali dischargeability. The residual absorbancy of II after heating 1 h at 130.degree. with FNC was 95%.

IT **106159-50-6P 106159-53-9P 106159-63-1P**
106159-64-2P 106159-73-3P
RL: PREP (Preparation)
(manuf. of, as orange polyester fabric dye)

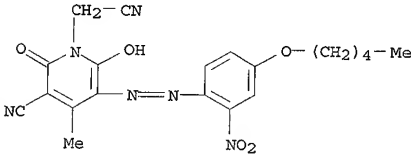
RN 106159-50-6 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 5-[[4-(2-butoxyethoxy)-2-nitrophenyl]azo]-3-cyano-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



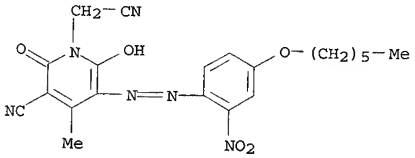
RN 106159-53-9 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 3-cyano-6-hydroxy-4-methyl-5-[[2-nitro-4-(2-phenoxyethoxy)phenyl]azo]-2-oxo- (9CI) (CA INDEX NAME)



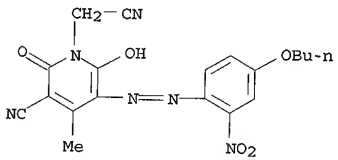
RN 106159-63-1 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 3-cyano-6-hydroxy-4-methyl-5-[[2-nitro-4-(pentyloxy)phenyl]azo]-2-oxo- (9CI) (CA INDEX NAME)



RN 106159-64-2 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 3-cyano-5-[[4-(hexyloxy)-2-nitrophenyl]azo]-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



RN 106159-73-3 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 5-[(4-butoxy-2-nitrophenyl)azo]-3-cyano-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



IC ICM C09B029-42
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 40
ST heat resistance pyridone monoazo dye; alkali discharge dyeing pyridone dye; moisture fastness pyridone monoazo dye; condensation reaction butyl chloroacetate pyridone; dyeing alkali discharge orange dye; polyester fiber orange pyridone dye
IT Dyes, azo
([[(alkoxynitrophenyl)azo]cyanohydroxymethylpyridones as, for polyester fibers, manuf. of)
IT Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(dyes for, orange, [(alkoxynitrophenyl)azo]cyanohydroxymethylpyridones as, manuf. of)
IT 60469-70-7, tert-Butylammonium bromide
RL: USES (Uses)
(as condensation catalyst)
IT 75125-55-2
RL: USES (Uses)
(condensation of, with Bu chloroacetate)
IT 590-02-3, Butylchloroacetate
RL: USES (Uses)
(condensation of, with [(methoxynitrophenyl)azo]cyanohydroxymethylpyridone)
IT 9017-33-8, Formaldehyde-naphthalene sulfonic acid copolymer

RL: USES (Uses)
(dyeing of polyester fibers with aq. solns. contg.)

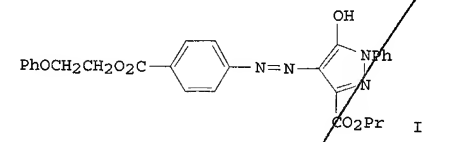
IT 106159-45-9P 106159-46-0P 106159-47-1P 106159-48-2P 106159-49-3P
106159-50-6P 106159-51-7P 106159-52-8P **106159-53-9P**
106159-54-0P 106159-55-1P 106159-56-2P 106159-57-3P 106159-58-4P
106159-59-5P 106159-60-8P 106159-61-9P 106159-62-0P
106159-63-1P 106159-64-2P 106159-65-3P 106159-66-4P
106159-67-5P 106159-68-6P 106159-69-7P 106159-70-0P 106159-71-1P
106159-72-2P **106159-73-3P** 106159-74-4P 106159-75-5P
RL: PREP (Preparation)
(manuf. of, as orange polyester fabric dye)

IT 7681-11-0, Potassium iodide, uses and miscellaneous
RL: USES (Uses)
(pyridone condensation in presence of)

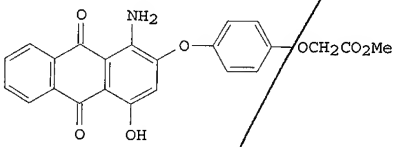
L18 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1986:554610 CAPLUS
DOCUMENT NUMBER: 105:154610
TITLE: Alkali-discharge-**resist** dyeing compositions for polyester fibers
INVENTOR(S): Himeno, Kiyoshi; Fujita, Takashi; Yoshihara, Junji; Sanaki, Ken
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61041382	A2	19860227	JP 1984-157045	19840727

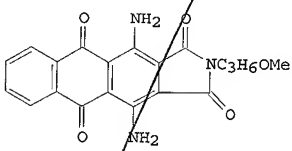
PRIORITY APPLN. INFO.: JP 1984-157045 19840727
GI



I



II



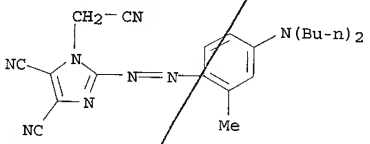
III

AB The title compns. producing multicolor dyeings with sharp pattern borders comprise an alkali-decomposable disperse dye compn., a saponifiable disperse dye compn. contg. an alkali, and an alkali-resistant disperse dye compn. contg. an alkali. Thus, alkali-decomposable yellow I 1.0, naphthalenesulfonic acid-HCHO condensate 2.0, and higher alc. sulfate 1.0 g were dispersed in 20 mL water, and this dispersion 20, 5% aq. Na alginate 55, citric acid 1, and water 24 g were mixed to give dispersion A. A dispersion was prepd. similarly using saponifiable red II in place of I, and the resulting dispersion 5, CM-cellulose thickener 30, Na2CO3 3, a polyethylene glycol-based solubilizer 10, a carrier 2, and water 50 g were mixed to give dispersion B. A dispersion was prepd. similarly using alkali-resistant turquoise III in place of I, and the resulting dispersion 5, CM-cellulose thickener 30, Na2CO3 15, solubilizer 15, carrier 2, and water 33 g were mixed to give dispersion C. A polyester fabric was impregnated with the dispersion A, dried at 100.degree. for 2 min, printed in a longitudinal stripe pattern with the dispersion C, dried at 100.degree., printed in a transverse stripe pattern with the dispersion B, dried at 100.degree., and steamed at 175.degree. for 7 min, followed by usual washing, redn. clearing, and drying to give a light- and wetfast dyeing with a grid pattern of turquoise longitudinal stripes and red transverse stripes in yellow background. The stripe overlap area was red-free turquoise, and the border between stripes was very sharp without color bleeding.

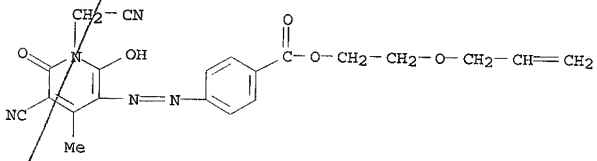
IT **77911-27-4 80432-88-8 83108-97-8**
86772-44-3 104482-34-0
RL: PEP (Physical, engineering or chemical process); TEM (Technical or

engineered material use); PROC (Process); USES (Uses)
(dye, in alkali-discharge-resist dye compns., for dyeing polyester fabrics in multicolor patterns)

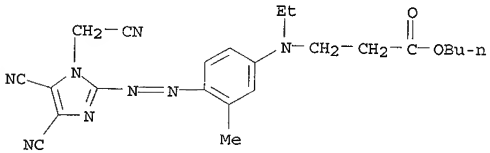
RN 77911-27-4 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(cyanomethyl)-2-[[4-(dibutylamino)-2-methylphenyl]azo]- (9CI) (CA INDEX NAME)



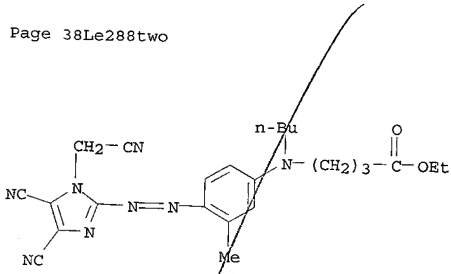
RN 80432-88-8 CAPLUS
CN Benzoic acid, 4-[[5-cyano-1-(cyanomethyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-, 2-(2-propenyloxy)ethyl ester (9CI) (CA INDEX NAME)



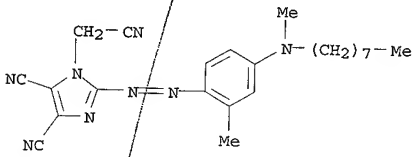
RN 83108-97-8 CAPLUS
CN .beta.-Alanine, N-[4-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]-3-methylphenyl]-N-ethyl-, butyl ester (9CI) (CA INDEX NAME)



RN 86772-44-3 CAPLUS
CN Butanoic acid, 4-[butyl[4-[[4,5-dicyano-1-(cyanomethyl)-1H-imidazol-2-yl]azo]-3-methylphenyl]amino]-, ethyl ester (9CI) (CA INDEX NAME)



RN 104482-34-0 CAPLUS
CN 1H-Imidazole-4,5-dicarbonitrile, 1-(cyanomethyl)-2-[[2-methyl-4-(methyloctylamino)phenyl]azo]- (9CI) (CA INDEX NAME)



IC ICM D06P005-12
CC 40-6 (Textiles)
Section cross-reference(s): 41
ST dyeing polyester fabric multicolor; alkali discharge dyeing polyester fabric; **resist** dyeing polyester fabric; azo dye polyester fiber; anthraquinone dye polyester fiber
IT Dyes, anthraquinone
Dyes, azo
(in alkali-discharge-**resist** dye compns., for dyeing polyester fibers in multicolor patterns)
IT Polyester fibers, uses and miscellaneous
RL: USES (Uses)
(printing on, alkali discharge-**resist**, in multicolor patterns)
IT Textile printing
(discharge, **resist**, alkali, on polyester fabrics in multicolor patterns)
IT 1533-74-0 1929-54-0 3008-71-7 3176-88-3 3176-90-7 3618-72-2
7576-65-0 10110-16-4 10319-14-9 12217-80-0 13518-01-9 13698-89-0
13716-91-1 16421-14-0 16472-04-1 17869-07-7 17869-09-9
25150-28-1 25176-89-0 26630-87-5 28080-91-3 28824-41-1
28824-43-3 29333-59-3 35170-70-8 42757-85-7 42783-06-2
42988-08-9 49744-25-4 49744-26-5 49744-42-5 52236-82-5
53773-30-1 54243-60-6 56827-97-5 56932-69-5 58622-70-1
58979-46-7 60462-90-0 61038-97-9 61355-92-8 61852-41-3
62072-81-5 62592-03-4 65121-70-2 65954-87-2 68479-79-8

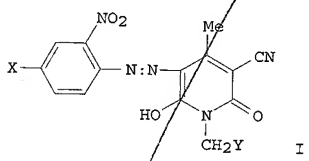
68516-81-4 68856-25-7 69323-63-3 71002-18-1 71599-85-4
72010-87-8 73264-50-3 73275-65-7 73275-66-8 75125-55-2
75511-86-3 77486-75-0 **77911-27-4** 79044-52-3 79044-55-6
79926-28-6 **80432-88-8** 80432-93-5 80439-91-4 80440-11-5
81350-13-2 81526-62-7 82411-38-9 82953-53-5 **83108-97-8**
86422-58-4 **86772-44-3** 87260-48-8 88470-43-3 88779-56-0
88779-60-6 88779-68-4 88779-76-4 88938-41-4 88938-54-9
88938-56-1 89050-33-9 89502-75-0 89502-76-1 92603-38-8
93932-39-9 93932-54-8 94080-03-2 94108-22-2 94850-76-7
95135-02-7 96142-23-3 96267-35-5 97461-13-7 97461-14-8
98637-67-3 98727-84-5 98727-88-9 98727-89-0 100479-20-7
100479-21-8 100479-26-3 100834-41-1 102301-07-5 104418-51-1
104418-52-2 104418-53-3 104482-08-8 104482-09-9 104482-10-2
104482-11-3 104482-12-4 104482-13-5 104482-14-6 104482-15-7
104482-16-8 104482-17-9 104482-18-0 104482-19-1 104482-20-4
104482-21-5 104482-22-6 104482-23-7 104482-24-8 104482-25-9
104482-26-0 104482-27-1 104482-28-2 104482-29-3 104482-30-6
104482-31-7 104482-32-8 104482-33-9 **104482-34-0**
104482-35-1 104482-36-2 104482-37-3 104482-38-4 104482-39-5
104482-40-8 104482-41-9 104482-42-0 104482-43-1 104482-44-2
104495-72-9 104495-73-0 104495-74-1 104495-75-2 104495-76-3
104495-77-4 104495-78-5 104495-79-6 104495-80-9 104495-81-0
104495-82-1 104495-83-2 104495-84-3 104495-85-4 104495-86-5
104495-87-6 104495-88-7 104495-89-8 104495-90-1 104495-91-2
104495-92-3 104495-93-4 104495-94-5 104495-95-6 104495-96-7
104495-97-8 104495-98-9 104495-99-0 104522-91-0 104573-03-7
104573-04-8 104573-05-9 104573-06-0 104573-07-1 104573-08-2
104573-09-3 104573-10-6 104573-11-7 104573-12-8 104573-13-9
104573-14-0 104573-15-1 104573-16-2 104573-17-3 104573-18-4
104573-19-5 104573-20-8 104573-21-9 104573-22-0 104573-23-1
104573-24-2 104573-25-3 104573-26-4 104573-27-5 104573-28-6
104573-29-7 104573-30-0 104573-31-1 104573-32-2 104573-33-3
104573-34-4 104573-35-5 104573-36-6 104573-37-7 104573-38-8
104573-39-9 104573-40-2 104573-41-3 104573-42-4 104573-43-5
104573-44-6 104573-45-7 104573-46-8 104573-47-9 104573-48-0
104573-49-1 104573-50-4 104573-51-5 104573-52-6 104573-53-7
104573-54-8 104573-55-9 104573-56-0 104573-57-1 104573-58-2
104573-59-3 104573-60-6 104573-61-7 104573-62-8 104595-72-4
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(dye, in alkali-discharge-**resist** dye compns., for dyeing polyester fabrics in multicolor patterns)

L18 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1986:188107 CAPLUS
DOCUMENT NUMBER: 104:188107
TITLE: Pyridone monoazo dyes
INVENTOR(S): Niwa, Toshio; Himeno, Kyoshi; Yoshihara, Junji
PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60139761	A2	19850724	JP 1983-251851	19831227

PRIORITY APPLN. INFO.: JP 1983-251851 19831227
GI

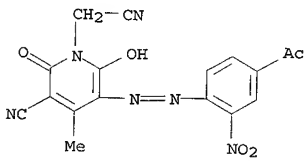


I

AB Dyes I are claimed, where X = H, halogen, NO2, Ac; Y = CN, CO2R; R = lower alkyl, alkenyl, lower alkoxyalkyl, aryloxyalkyl, or aralkyl. The dyes have good alkali **resist** discharge dyeing properties. Thus, 100 g polyester cloth was dyed 60 min at 130.degree. in 3 L water contg. I (X = Cl, Y = CN) 0.5, a naphthalenesulfonic acid-HCHO condensate 1.0, and a higher alc. H2SO4 ester 2.0 g to give a yellow cloth having light, sublimation, and wet fastness. The dye had alkali discharge dyeing property level 4-5, compared with 2-3 for I (X = Cl, Y = Me).

IT **100479-37-6**
RL: USES (Uses)
(dyes, for polyester fibers, with good alkali **resist** discharge printing properties)

RN 100479-37-6 CAPLUS
CN 1(2H)-Pyridineacetonitrile, 5-[(4-acetyl-2-nitrophenyl)azo]-3-cyano-6-hydroxy-4-methyl-2-oxo- (9CI) (CA INDEX NAME)



IC ICM C09B029-42
CC 40-6 (Textiles)
Section cross-reference(s): 41
ST polyester cloth dyeing; pyridone azo dye; alkali discharge **resist**

dyeing

IT Textile printing
(discharge **resists**, alkali, on polyester fibers, pyridone monoazo dyes for)

IT Dyes, azo
(pyridone compds., for polyester fibers, with good alkali **resist** discharge printing properties)

IT 100479-20-7 100479-21-8 100479-22-9 100479-23-0 100479-24-1
100479-25-2 100479-26-3 100479-27-4 100479-28-5 100479-29-6
100479-30-9 100479-31-0 100479-32-1 100479-33-2 100479-34-3
100479-35-4 100479-36-5 **100479-37-6** 100479-38-7
100479-39-8 100479-40-1 100479-41-2 100479-42-3 100479-43-4
100479-44-5
RL: USES (Uses)
(dyes, for polyester fibers, with good alkali **resist** discharge printing properties)

IT 107-14-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with (chloronitrophenylazo)cyanohydroxymethylpyridone)

IT 99108-52-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with chloroacetonitrile)